The Second Avenue Subway Line

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Cover illustration by RORY LIU

...the line that almost never was.

To find the roots of the Second Avenue Subway line, one must go back to the year 1919, when Consulting Engineer Daniel L. Turner, of the Public Service Commission, launched a study for the comprehensive extension of existing rapid transit systems in New York City.

That was the year when peace conferees convened in Paris after World War I . . . when trade with Germany resumed . . . and Sir Barton became the first winner of thoroughbred racing's Triple Crown for capturing the Kentucky Derby, the Preakness and the Belmont Stakes.

By then subway, elevated and surface lines were already straining under heavy passenger loads. Some 1.3 billion passengers a year were riding the city's rapid transit lines by 1920, sharply higher than the 523 million persons they hauled seven years earlier.

This, then, was the setting in which engineer Turner compiled his memorable paper, entitled "Proposed Comprehensive Rapid Transit System."

He was no small-scale planner. His proposals included the construction of new subway lines under a half dozen north-south avenues in Manhattan, including Madison Avenue and Third Avenue. His 1920 blueprint recommended construction of eight new crosstown lines in Manhattan, extensions of existing Queens lines, and three Narrows crossings to Staten Island.

Some scaled-down Turnerian proposals subsequently appeared in plans for a new City-owned Independent (IND) subway system, where the Second Avenue Subway was first mentioned.

The IND system was plotted as a two-phase plan. The first was to include the Sixth and Eighth Avenue Trunk lines. Phase II was to be built around a Second Avenue Trunk Line.

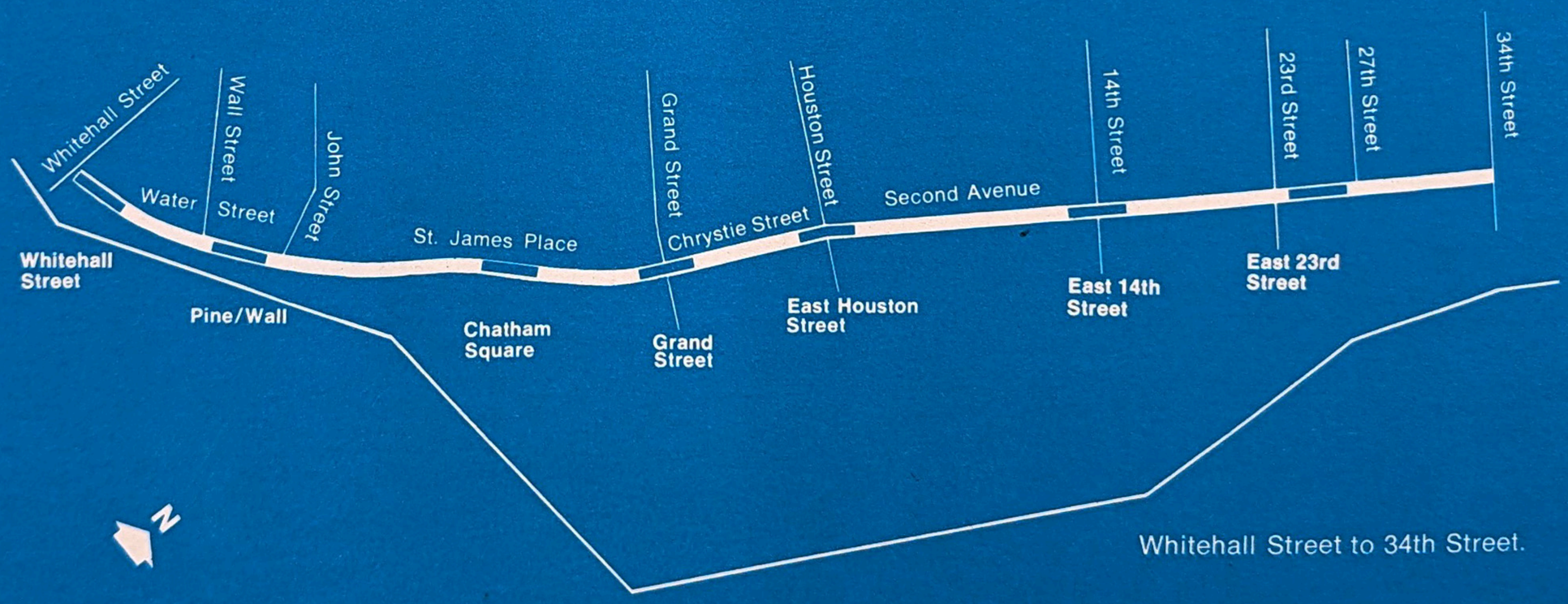
The Turner paper was updated by its author and presented in January, 1927. It included some new entries—a Tenth Avenue Trunk Line and Bronx and Queens Crosstown systems—in addition to a Second Avenue Trunk Line proposal. He mapped the Second Avenue as a six-track line through Manhattan, possibly with a short, eight-track segment to accommodate a connection to Queens.

In view of the long and tortured history of the Second Avenue Subway—which had to endure wars, economic depression, bitter local disputes and the painful impact of monetary inflation—it would be helpful to point out at this point that plans for the line underwent almost constant study and change.

For example, in the early planning, the line was seen as connecting with the Grand Concourse branch in The Bronx. In lower Manhattan, two of its tracks would extend under the East River and connect up with the IND's Eighth Avenue-Fulton Street Line in Brooklyn. By March, 1927, preliminary cost estimates for the line stood at $165,000,000 for a six-track system, including connections and the East River Tunnel.

Months began slipping by. The Lexington Avenue subway was becoming more and more crowded and in an effort to ease this problem, a number of unique and interesting plans appeared. One suggestion was for an additional tunnel under the existing Lexington Avenue tracks, but this was rejected due to the difficulty encountered in installing the present rails in soft soil. Others suggested that an entirely new avenue be carved out between Second and Third Avenues, and under it a new subway line built. This, too, was ruled out for cost reasons.

It was now 1929, the year of the Stock Market crash that was to become a worldwide depression. In May of that year, the Board of Transportation tentatively decided to establish a Second Avenue route from Houston Street to the Harlem River. Projected cost: $86,280,000. By that time, construction of the IND line—Phase I—was well under way; it began in March, 1925. Phase II was also taking a definite shape. A timetable called for letting contracts between 1930 and 1935, and for service to be operating between 1938 and 1941 on some segments of the line.



Whitehall Street to 34th Street.

Governor Nelson A. Rockefeller (second from left) leads way with pickaxe for Second Avenue Subway groundbreaking while (l.-r.) Senator Jacob K. Javits, former U.S. Transportation Secretary John A. Volpe, Mayor John V. Lindsay and MTA Chairman William J. Ronan stand by to wield shovels and get the long awaited Transportation Artery under way.

The Second Avenue's routing included a turn-off in the vicinity of 63rd Street so that a link-up could be effected with the Sixth Avenue Line. It would also have elevated connections in The Bronx at Morris Park and Lafayette Avenue. Another connection would be made with a new 34th Street subway and river tunnel system.
It was finally decided that the turnoff point would be at 61st Street (after property owners on 57th Street fought against using that thoroughfare for the new line), and that the remaining four tracks of the six-track line would continue south to Chambers Street. From that point, two tracks would proceed still further south to Fulton Street.

It was also determined that Phase II would be fully integrated and interconnected with Phase I so that the IND would, in fact, be one system. Phase II had undergone many refinements, so that it now stood as a 100-mile drawing-board system whose construction cost was seen as more than $438,000,000.

In February, 1930, a public hearing on the Second Avenue plan was conducted by the Board of Transportation. It echoed with cries from civic and taxpayer organizations to move forward as speedily as possible. Exhaustive studies for the line's construction, and of real estate considerations, followed. By then it was estimated that $92,880,000 would be the cost to build the route from Houston Street to the Harlem River. Not discouraged by the mounting cost estimates, the planners plunged ahead. They decided to drop the 61st Street turnoff plan and instead establish a turnoff at 34th Street, along which a crosstown branch of the line would continue to Tenth Avenue. They also decided to begin

1922

building the Second Avenue line above 32nd Street in 1931, and below 32nd Street four years later. The above-32nd Street sector was scheduled to be operating in 1937 and the southern portion in 1940.

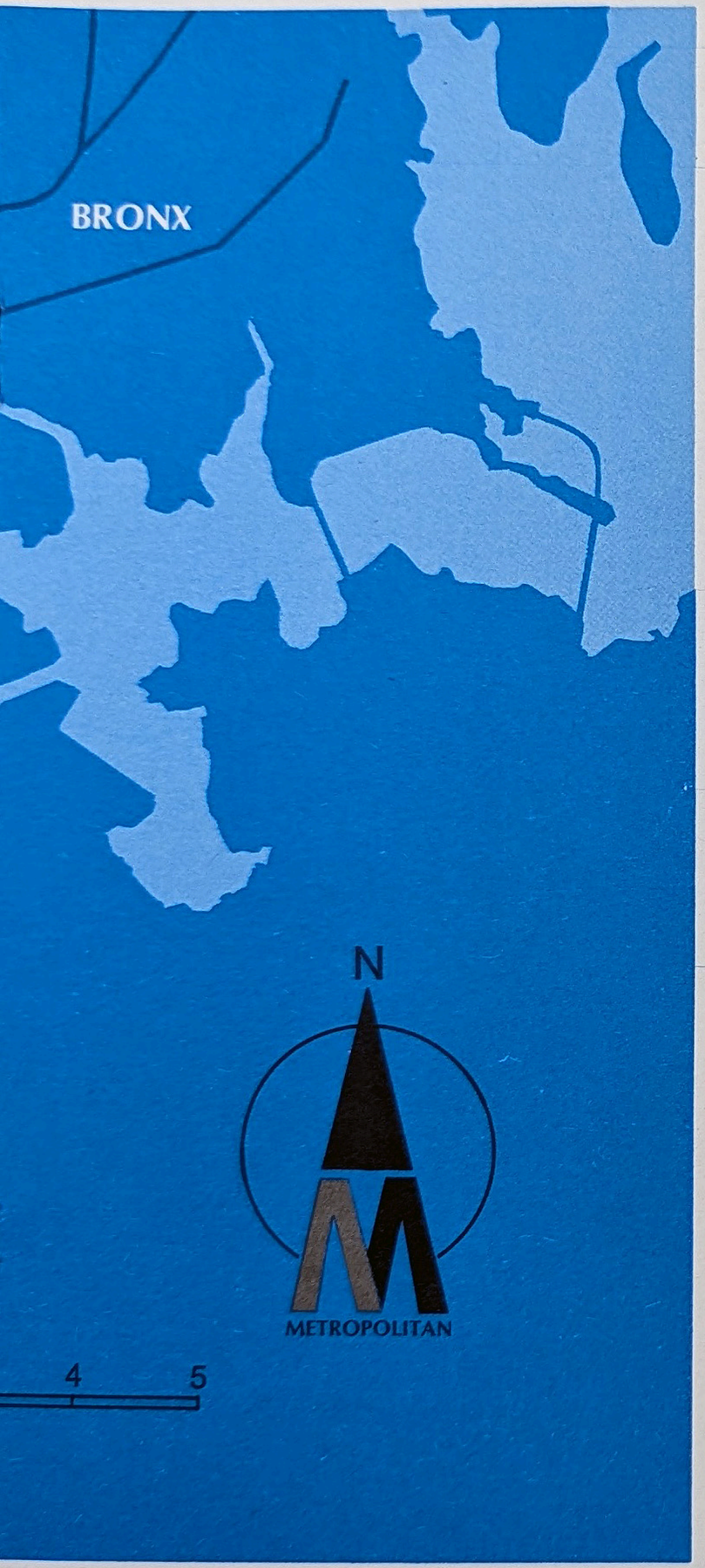
One could almost see the dirt flying for the Second Avenue Subway. But almost unnoticed down the line was the cautionary amber signal that had come on; the once promising green "go" light was out.

It was now 1931 and New York City was experiencing the terrible squeeze from the economic depression. Earlier cost estimates for the IND line were proving to be far too low—by nearly 100 percent—and Phase I construction was far behind schedule. Finally, construction plans for the Second Avenue phase had to be postponed.

In a cost-cutting move, it was decided that the Second Avenue line would link up with the existing Nassau Street loop rather than extend into lower Manhattan.

And a new target date was set for the Second Avenue: completion in 1948. But the red "stop" light was now on. The Second Avenue Subway was headed for decades of delay.

The year was 1939. The gaiety of New York's World Fair was cast in a dark shadow when Britain and France declared war on Germany. By then, the Second Avenue plan had cooled to a low-priority plan, a "proposed route" whose estimated cost stood at $249,360,000. In fact, all subway construction had halted due to the war. It was now two decades since engineer Turner's study began.



The next version of the Second Avenue Subway emerged in 1944, strongly resembling the original Phase II concept: two tracks serving lower Manhattan, two tracks connecting with the Manhattan Bridge and two others connecting with the Williamsburg Bridge. From Canal to 57th Streets, it would have four tracks and from lower Manhattan, two tracks. Above 57th Street it would be a six-track system, two of which would be used by Bronx super-expresses.

A few new wrinkles also appeared. Since Second Avenue was too distant from the midtown Central Business District, some felt, a connection to the Sixth Avenue line was a must. The new version also included a sub-Central Park rail tunnel, but opponents of this scheme forced a switch to 57th Street to effect the Sixth Avenue line connection. The plan also called for a BMT line connection in Brooklyn, and with it a major revamping loomed for the DeKalb Avenue station.

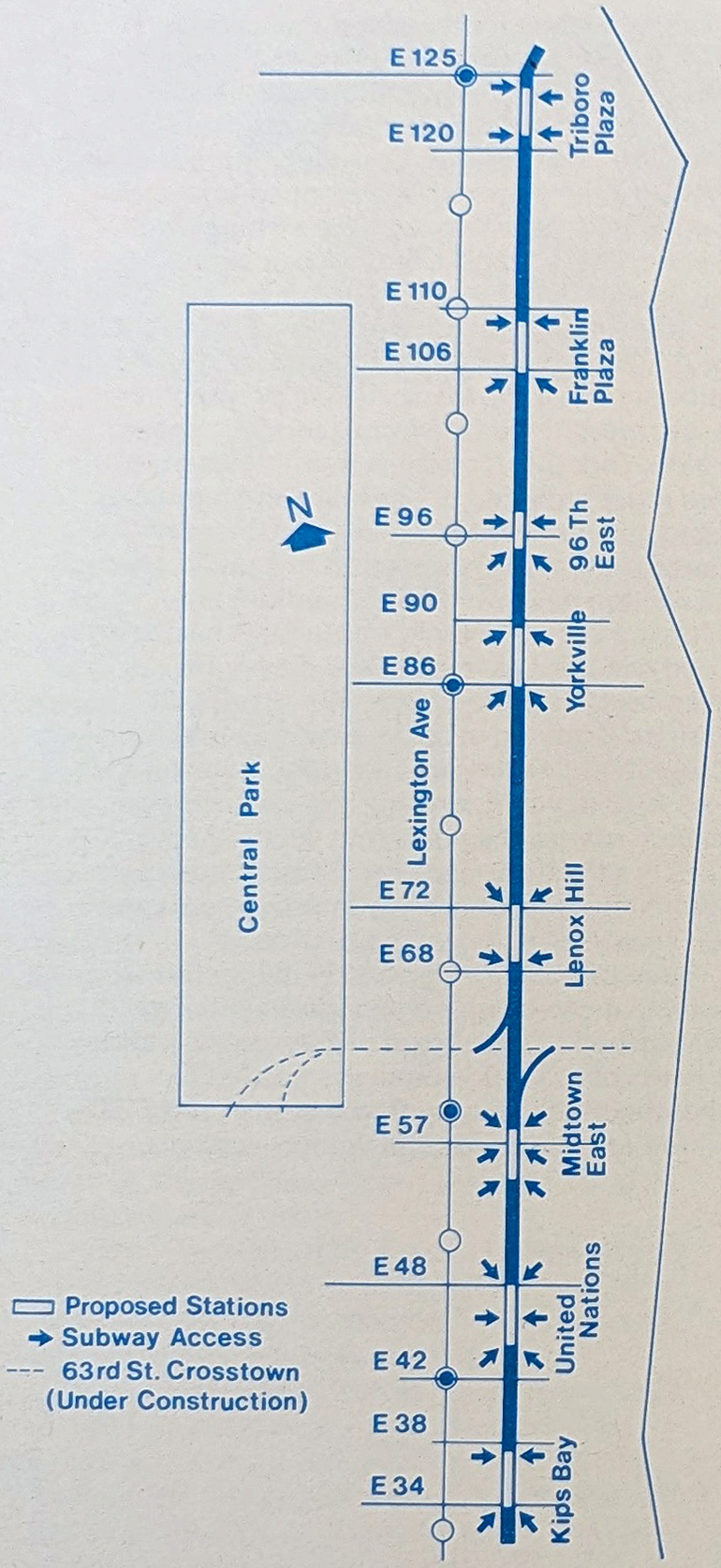
The line's Bronx branches were to replace the Third Avenue "el" and provide a route along Lafayette Avenue. Overall, construction would take seven years, it was estimated, and cost would be $242,000,000 as far north as 149th Street; the branches would be built later.

Updating time for the plan came on May 31, 1945. The two lower Manhattan tracks were stored away as possibly a future route into Brooklyn, and the connection to the Nassau Street loop was revived. Consideration was now given to linking up with the planned Lafayette Avenue line, as well as with the existing Dyre Avenue, Pelham, and Concourse lines, all in The Bronx.

The year 1947, on the world scene, saw Princess Elizabeth wed to Lt. Philip Mountbatten and the introduction of the Marshall Plan proposal to save western Europe from economic chaos. In New York City, the rapid transit lines were even more crowded but as more and more cars began appearing on the roads, the Board of Transportation experienced its first deficit years: $18 million in 1947 and $30.6 million the following year. The rapid transit fares had to be raised from five to ten cents and from five to seven cents on surface lines. But the deficit persisted. New financial resources would have to be found due to the City's poor financial state.

As 1948 dawned, existing subway lines had become rundown or obsolete due to the war, the City's fiscal problems and rapid transit's deficits. Funding of subway improvements and new construction was a major problem.

While the City only had $655 million for all municipal capital improvements over the next six-year period, the Board of Estimate was told: at 1948 costs, $300 million was needed to rehabilitate the existing transit system and $500 million for proposed capital improvements.



34th Street to 126th Street

A suggestion formerly made was revived at this point: request the State Legislature to authorize the City to exceed its constitutional debt limit so that $500 million could be raised for subway construction. The City formally requested such action, but failed to win approval.

By 1949, the Second Avenue Subway plan was a major topic of discussion among New Yorkers, and there were cross-currents of interests. Lower Manhattan representatives voiced concern that the tip of the borough would stagnate if the line were built into the existing (but underused) Nassau Loop line. Fast-growing Queens complained that the Second Avenue planners failed to recognize the borough's local transit problems and its inadequate and jammed transit links with Manhattan's Central Business District. Queens feared that the costly Second Avenue line —now estimated at $504,000,000—would rule out transit improvements in their borough for years to come. Its residents and businessmen began to cry "short change!" and the borough mobilized against the existing Second Avenue plan. Queens legislators were told not to approve the $500 million bond issue referendum proposal until firm promises were obtained to improve the borough's transit services.

Despite the borough's efforts, the City again asked the Legislature to approve the debt exemption in January, 1950. This time the Legislature voted "yea." But the Queens effort was not all in vain. A June, 1950, report to the Board of Transportation recommended that two of the six tracks of the Second Avenue line be turned eastward to Queens so that 34 additional trains an hour could serve the borough. These tracks were to split off from the trunk line, proceed under the East River from 76th Street, Manhattan, to 34th Avenue in Queens, and along 34th Avenue to Northern Boulevard, and then to Long Island Rail Road tracks on to Rockaway over a Jamaica Bay trestle which had been hit by fire a short time before. This particular plan was estimated to cost $118,300,000, of which $63.3 million would be derived by deferring construction of other portions of the trunk line. Further, the Second Avenue would become a four-track system north of the Queens connection at 76th Street, and other rapid transit programs would be delayed to help provide the money.

The newest estimate of the Second Avenue project was now placed at $559,200,000—but not for long. The Korean War broke out in June, 1950, and the price of construction materials soared as inflation hit.

When November, 1951, arrived, the State's voters approved the $500 million bond issue but there were no developments on the Second Avenue line as the Korean War continued. As a new year dawned, the still-talked-about Second Avenue line was seen as a billion-dollar project. Nonetheless, a new target date for its completion appeared: 1957 or 1958.

As the years rolled by, New York City's financial and transit crunch, combined with the worsening condition of the existing rapid transit system, caused the Second Avenue Subway plan to be pushed aside once more. Improvements had to be made on existing lines. Obviously, the $500 million bond issue funds could not be used to build a new subway when the existing ones were in such inferior condition. In fact, by 1957, only about $112 million of the bond issue money remained for future subway improvements; the rest had been used on the present system.

A public furor arose over the Second Avenue Subway project and the bond issue funds. Many persons felt the bond issue was solely for the new line. Charges of misuse of the funds flew furiously, even though the legislative language which made the money available did not spell out any specific program for which the money would be used. During the public controversy, The New York Times concluded, "It is highly improbable that the Second Avenue Subway will ever materialize."

Another painful reminder of the legendary Second Avenue Subway came on February 16, 1956, when the last of the Third Avenue "el" came down. The new line was counted on to carry the el's former riders.

A formal probe into the fate of the bond issue funds was held in March, 1957. Charles L. Patterson, Chairman of the four-year-old New York City Transit Authority, upheld the legality of the TA's use of the funds, noting that the money was not legally restricted to the Second Avenue project. He explained that plans had been predicated on an increase in ridership, not on the tremendous rise in private car use after the war. He cited the age of the existing system, the urgency of the rehabilitation work, and the sharp rise in costs which made the Second Avenue line an impossible dream.

Public antagonism over the bond issue fund's use persisted. This was evident in 1959, when another bond issue—for school construction—was soundly defeated at the polls.

As the Decade of the Sixties began, the Second Avenue Subway appeared to be permanently doomed. But the need for a new East Side line in Manhattan was never more vital. A building boom in Manhattan was well under way, and most of it was concentrated on the east side of the borough. Not only were magnificent new office buildings extending skyward, but so were many new luxury apartment houses. One could almost hear the overburdened Lexington Avenue Subway line groaning under the load it was being forced to carry. The subway planners stayed at their task. The Transit Authority now hoped for a subway under Central Park, to connect with the Broadway BMT and the Sixth Avenue IND line in Manhattan, and with the IND Concourse and IRT Pelham Bay line in the Bronx. Also part of this plan was a future connection with Queens lines. However, this plan was seen as a rush-hour-only express service, one which could be built at far less cost than a full-service Second Avenue line.

The plan met with little enthusiasm, however. Another long list of proposals followed. A February, 1963, proposal re-introduced the idea of a 76th Street tunnel which would connect with the Central Park Subway, the Broadway and Sixth Avenue lines in Manhattan, and with Queens Boulevard tracks in Queens. This plan, in turn, was followed by one from the City Planning Commission. It featured construction of a 59th Street Tunnel to Queens, with a connection to the Long Island Rail Road. The Second Avenue line would connect to the Pelham and Concourse lines in The Bronx, to the 59th Street Tunnel, would turn into Madison Avenue and proceed under the avenue until it linked up with the Broadway BMT at 23rd Street, thus providing additional lower Manhattan service. But the plan bore a "long-range" label and was not accepted. Moreover, funds were still lacking for the line.

But just ahead lay developments that were to transform the dream to reality.

In July, 1964, the federal Urban Mass Transit Act was passed, and with it was born the promise of U.S. funding of urban transit construction

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The New York Times

NEW YORK, THURSDAY, JANUARY 17, 1957

DWINDLING TRANSIT FUNDS

Most of Half-Billion Voted for a Second Ave. Subway Has Gone Elsewhere

By STANLEY LEVEY

State Senator MacNeil Mitchell, Manhattan Republican, asked yesterday in Albany what happened to the $500,000,000 subway bond issue approved by voters in 1951. The answer is that most of it—$392,265,730, to be exact—has been spent in improving and rehabilitating this city's subway system.

But that answer may not be entirely satisfactory to the citi-

Last summer Mayor Wagner appointed a Transit Planning Commission to restudy the whole problem of New York's rapid transit. A report is expected in perhaps six months.

But it is highly improbable that the Second Avenue subway —as it was conceived originally in 1929 and approved five years ago by New York voters—will ever materialize. And even if it does, it certainly will cost far

projects. In 1967, Governor Nelson A. Rockefeller sponsored a $2.5 billion Transportation Bond Issue, an historic step which would permit the State of New York to institute a large-scale program for major development and capital improvements in mass transit. This time the voters registered a resounding "yes." One billion dollars was now authorized for urban transit in the State, including some $600 million for construction plans for the New York City transit system.

Another vital development was the establishment, in 1965, of the Metropolitan Commuter Transportation Authority, under Chairman William J. Ronan, upon the recommendation of Governor Rockefeller and the approval of the Legislature. In 1968, the MCTA became the Metropolitan Transportation Authority and was given control of the Transit Authority, among other agencies.

By early 1968, there was general agreement on a new East Side Line and the Second Avenue Subway plan was finally on its way. In a "Program for Action" formulated by the MTA, the Second Avenue project was given top priority. It would extend from 34th Street to The Bronx, where it would link up with the Pelham Bay and Dyre Avenue lines. It would be a four-track system, but initially would be equipped as a two-track facility with easy expansion to four later on, during Phase II of the program. Cost of the line was roughly estimated at $220 million.

It would be linked up with a new East 63rd Street Tunnel which, in turn, would permit a Central Park subway line linkup with the IND and BMT lines terminating at 57th Street. The second phase of the Action Program would extend the Second Avenue line down to Water Street near the Battery.

After the plan proceeded through the Board of Estimate, approval was given on September 20, 1968, for a two-track subway the full length of Manhattan, with connections in The Bronx as well as with the 63rd Street Tunnel rail-tunnel system.

The Second Avenue line now being constructed will be a deep-rock tunnel system, where feasible, for the length of Manhattan, with connections to the 63rd Street Tunnel system. Stations will be spaced farther apart than on present local subway lines to permit the fastest possible service. The line will extend 14 miles from the Battery to East 180th Street, in The Bronx, where it will link up with the Pelham and Dyre Avenue lines.

To finance the first construction work—from 34th Street to 126th Street—the City applied for $254 million in Federal funds, and an initial grant of $25 million was approved by the Urban Mass Transportation Administration. This marked the first time Federal money was ever made available for major new subway construction in New York City's history. The remainder of the money needed for $381 million cost of this segment of the Second Avenue line will come from the 1967 Bond Issue funds—$84 million in State funds—and $43 million from New York City.

Groundbreaking ceremonies for The Line That Almost Never Was were held on October 27, 1972, at East 103rd Street and Second Avenue—53 years after engineer Turner started his study.

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